Reviewing Your FAST Data Submission

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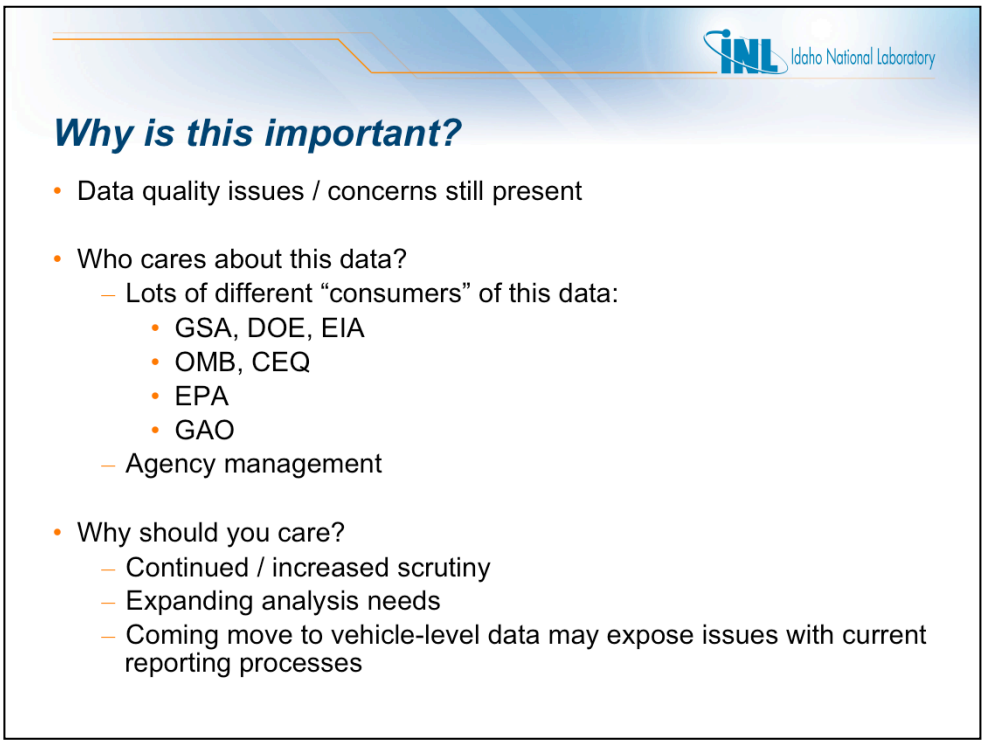
What will we cover?

- Why is this important?
- Where do I start?
- What am I looking for?
- Tracking down problems
- A few more tools…
- Q & A

- FAST Q & A session today @ 3:30



Data quality issues / concerns are still present:

- Over the past 5 or 6 years, the FAST management team's emphasis on data quality seems to be paying off in that many of the most glaring types of problems we were seeing are not occurring as frequently, at least when looking at data aggregated to the agency level.
- Some of the improvement is based on agencies improving their reporting processes and systems,
- Some of the improvement is agency leads ensuring the data is reviewed and taking advantage of the tools in FAST to find and fix issues
- Some of the improvement is based on more review effort on the part of the FAST management team earlier in the submission process,

That's good, but the FAST management team is still seeing some of those same sorts of problems, and many of those same sorts of problems where we've focused on agency aggregates are still present in the underlying data (e.g., at the bureau or fleet level below the agency).

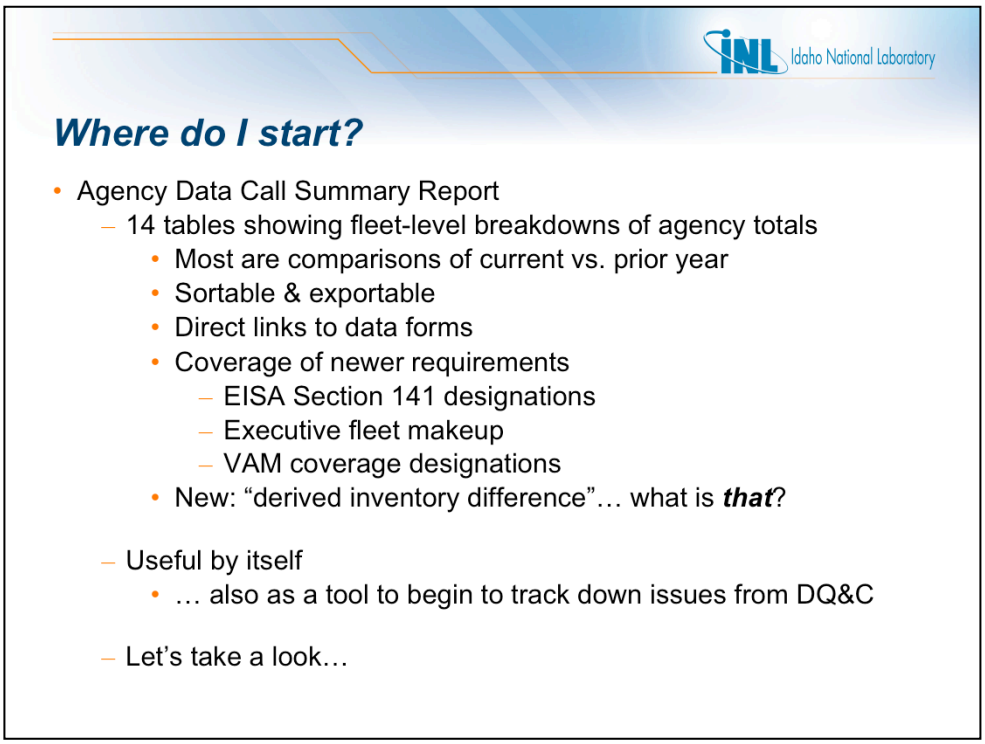
The FAST management team is under increasing pressure to meet their own reporting responsibilities sooner after the close of the data call, so they are trying hard to make sure agency leads get feedback as early as it looks like their submission is complete so that issues can be addressed before the close of the data submission window. Many of the agency leads saw that feedback from DOE and/or GSA during this past data call. Agency leads should expect that effort to continue; anything we can do to make sure issues are addressed early and/or that what may just be an anomaly due to other factors can be understood and explained as early as possible accelerates the ability for the organizations who need this information to actually use it.

Future move to vehicle-level data (VLD): Any move in the future to vehicle-level data (we believe that such a move is quite likely) will fundamentally change the shape of the data collected and will change the manner in which and the level at which that data is validated. Many of the common types of consistency issues, in particular, may simply not be possible with VLD (e.g., mismatches between vehicles and fuel consumption). Ensuring that your agency submission is thoroughly reviewed now can help ensure that there aren't gaps or overlaps in what your agency is submitting, which could cause significant swings once the data is being reported in a more detailed manner.

We will look at two key reports that can be used as the starting point for reviewing your agency's submission:

- Data Quality & Consistency Report
- Agency Data Call Summary Report

[Demo: Data Quality & Consistency Report]



Second report is the agency-level Data Call Summary report.

This report deployed in FAST in the 2012-2013 timeframe:

- There is an analogous report at the Federal level that DOE and GSA use in their initial review of agency submissions; many of the kinds of issues that DOE or GSA reach out to agencies to investigate at the end of the data call are highlighted in that Federal version of this report
- While the Federal-level report used by DOE and GSA looks at agency aggregates, this report is looking at fleet-level submissions and how the fleet data contributes to the agency aggregates
- This report was originally conceived of as a set of predefined tables that, for certain situations or users, could replace building and running queries in the FAST query tool

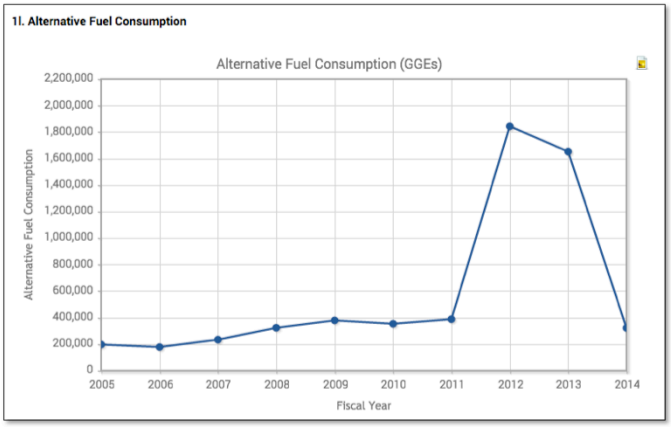
Derived inventory (added for FY2014 data call):

- Based on different portions of the "actuals" data submitted by the fleets
- Actual inventory from last year + actual acquisitions reported this year – actual disposals reported this year SHOULD equal actual inventory reported this year
- Note: All of these are actuals; none of the planned, projected, forecast data is used
- Any deviation between actual and derived inventory is indicative of some sort of problem or inconsistency with one or more of those actual figures
- Potentially very important way of looking at consistency of agency submissions from year to year, as it highlights unexplained changes in inventory (e.g., inconsistencies in inventory, in acquisitions, or in disposals)

[Demo: Agency Data Call Summary Report]

What do I look for?

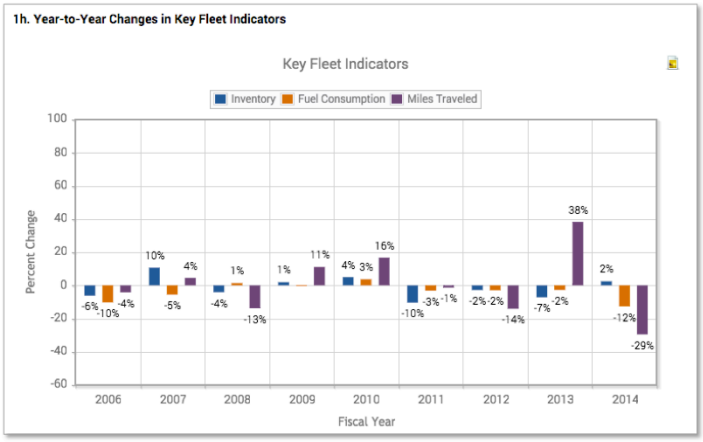
- In the Data Quality & Consistency Report:
  - Big swings compared to past



This sort of significant swing shown here, particularly with relatively large values, is not typical… important thing to remember is that there are a number of things that could cause this sort of swing.

What do I look for?

- In the Data Quality & Consistency Report:
  - Things that just don't look right



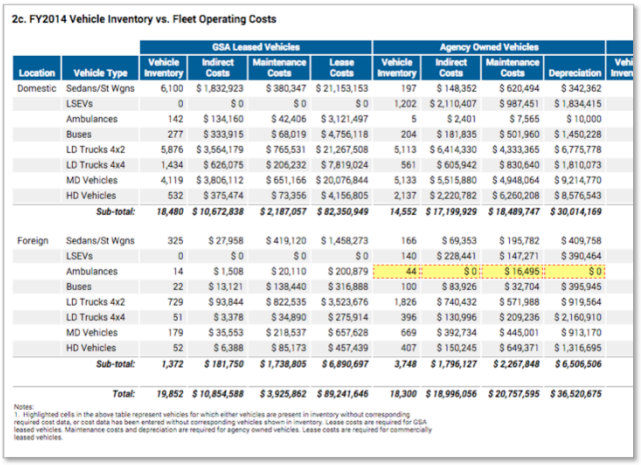
Looking at how metrics are moving with or against each other: something here (actually several things) just don't look like they make sense

- 2013's 40% increase in vehicle mileage with decreases in both inventory and fuel consumption;
- 2014's 30% decrease in vehicle mileage – which may actually be a function of bad data the prior year – in conjunction with a significant (but not large enough) drop in fuel consumption

Also look for fleet metrics that just are not what you are expecting based on what you know about the operation of your fleet through the year (e.g., unexpected changes in inventory, shifts in fuel volumes consumed, etc.).

What do I look for?

- In the Data Quality & Consistency Report:
  - Things that are highlighted



2c. FY2014 Vehicle Inventory vs. Fleet Operating Costs

		GSA Leased Vehicles				Agency Owned Vehicles				
Location	Vehicle Type	Vehicle Inventory	Indirect Costs	Maintenance Costs	Lease Costs	Vehicle Inventory	Indirect Costs	Maintenance Costs	Depreciation	Vehi Inven
Domestic	Sedans/St Wgns	6,100	$ 1,832,923	$ 380,347	$ 21,153,153	197	$ 148,352	$ 620,494	$ 342,362	
	LSEVs	0	$ 0	$ 0	$ 0	1,202	$ 2,110,407	$ 987,451	$ 1,834,415	
	Ambulances	142	$ 134,160	$ 42,406	$ 3,121,497	5	$ 2,401	$ 7,565	$ 10,000	
	Buses	277	$ 333,915	$ 68,019	$ 4,756,118	204	$ 181,835	$ 501,960	$ 1,450,228	
	LD Trucks 4x2	5,876	$ 3,564,179	$ 765,531	$ 21,267,508	5,113	$ 6,414,330	$ 4,333,365	$ 6,775,778	
	LD Trucks 4x4	1,434	$ 626,075	$ 206,232	$ 7,819,024	561	$ 605,942	$ 830,640	$ 1,810,073	
	MD Vehicles	4,119	$ 3,806,112	$ 651,166	$ 20,076,844	5,133	$ 5,515,880	$ 4,948,064	$ 9,214,770	
	HD Vehicles	532	$ 375,474	$ 73,356	$ 4,156,805	2,137	$ 2,220,782	$ 6,260,208	$ 8,576,543	
	Sub-total:	***18,480***	***$ 10,672,838***	***$ 2,187,057***	***$ 82,350,949***	***14,552***	***$ 17,199,929***	***$ 18,489,747***	***$ 30,014,169***	
Foreign	Sedans/St Wgns	325	$ 27,958	$ 419,120	$ 1,458,273	166	$ 69,353	$ 195,782	$ 409,758	
	LSEVs	0	$ 0	$ 0	$ 0	140	$ 228,441	$ 147,271	$ 390,464	
	Ambulances	14	$ 1,508	$ 20,110	$ 200,879	44	$ 0	$ 16,495	$ 0	
	Buses	22	$ 13,121	$ 138,440	$ 316,888	100	$ 83,926	$ 32,704	$ 395,945	
	LD Trucks 4x2	729	$ 93,844	$ 822,535	$ 3,523,676	1,826	$ 740,432	$ 571,988	$ 919,564	
	LD Trucks 4x4	51	$ 3,378	$ 34,890	$ 275,914	396	$ 130,996	$ 209,236	$ 2,160,910	
	MD Vehicles	179	$ 35,553	$ 218,537	$ 657,628	669	$ 392,734	$ 445,001	$ 913,170	
	HD Vehicles	52	$ 6,388	$ 85,173	$ 457,439	407	$ 150,245	$ 649,371	$ 1,316,695	
	Sub-total:	***1,372***	***$ 181,750***	***$ 1,738,805***	***$ 6,890,697***	***3,748***	***$ 1,796,127***	***$ 2,267,848***	***$ 6,506,506***	
	Total:	***19,852***	***$ 10,854,588***	***$ 3,925,862***	***$ 89,241,646***	***18,300***	***$ 18,996,056***	***$ 20,757,595***	***$ 36,520,675***	

Notes:
1. Highlighted cells in the above table represent vehicles for which either vehicles are present in inventory without corresponding required cost data, or cost data has been entered without corresponding vehicles shown in inventory. Lease costs are required for GSA leased vehicles. Maintenance costs and depreciation are required for agency owned vehicles. Lease costs are required for commercially leased vehicles.

Areas of inconsistency: these will typically be visually highlighted:

- In this example, group of 44 owned vehicles w/o indirect costs and without depreciation.
- There may be a valid explanation, but these vehicles stand out because of that inconsistency but also because they are inconsistent with other vehicle groups:
  - Only row w/vehicles and w/o indirect costs
  - Only row of owned vehicles w/o depreciation

Note: this data may not be wrong (i.e, these vehicles may be managed financially differently than other vehicles in the fleet), but they do look odd. When things like this are highlighted, it is important that you as the agency lead understand whether they are correct(and can explain what looks to be an anomaly) OR that you dig into them to find and fix the problem.

As noted earlier, this type of inconsistency is showing in the agency-level DQ&C report much less frequently than it was 5 years ago.

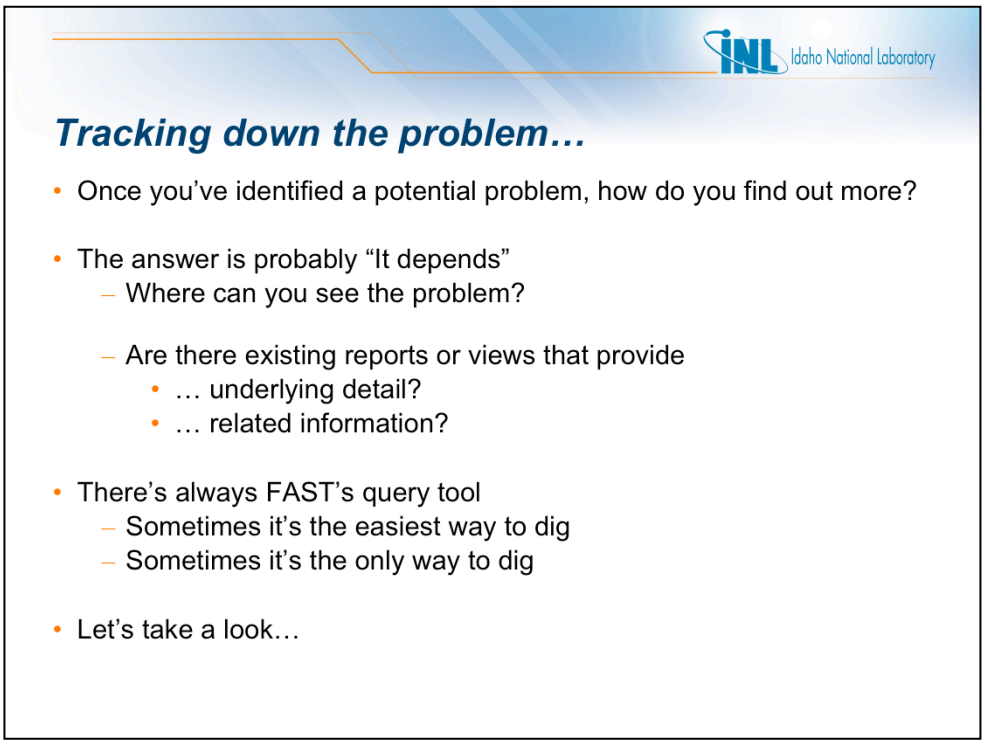
What do I look for?

- In the Agency Data Call Summary report:
  - Changes that are highlighted
  - Look for big changes
    - … accounting for fleet size
  - Look at current-year breakdowns based on what you know about your fleet
    - Start with bottom line numbers
    - … then find contributing fleets
  - Let's take a look…

Look for values that are highlighted

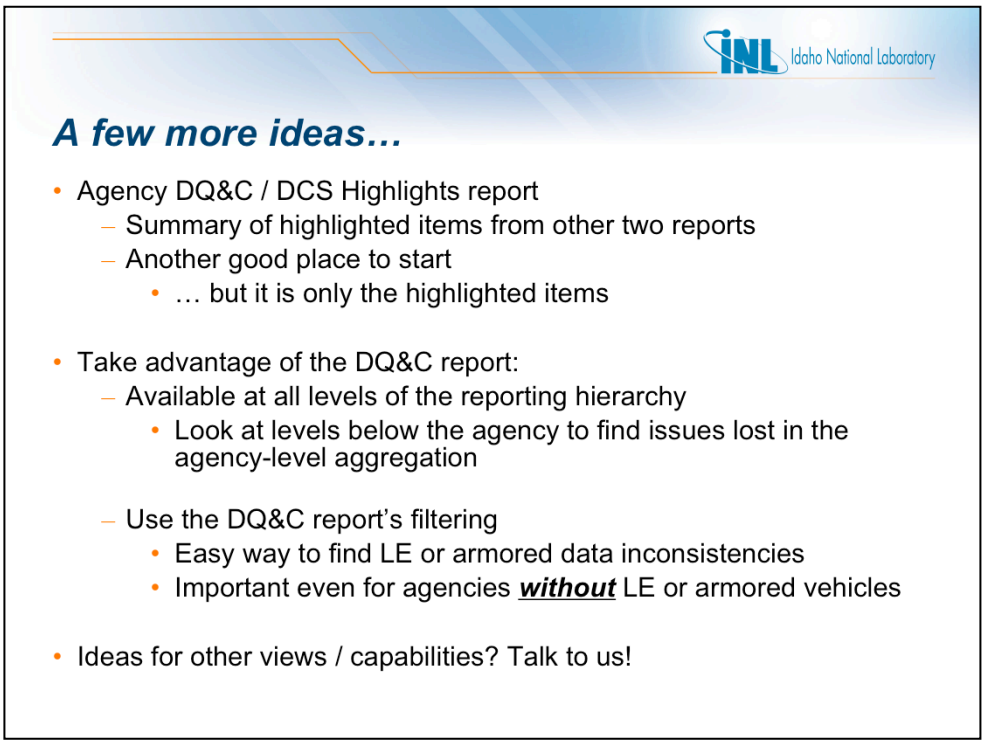
- … but remember that small quantities can magnify percentage changes out of proportion
- So also look at the changes in light of overall magnitudes (for example, a significant change in a large fleet may not meet the threshold to cause it to be highlighted)

[Demo: Use ADCS report to look at swings in alternative fuel consumption shown in earlier slide]



One approach is to use the ADCS report to get additional detail on problems shown in the DQ&C report, then switch back to bureau-level or fleet-level DQ&C reports to dig further.

[Demo: Using FAST's query tool to validate consistency of LE/ER/foreign vehicles with the corresponding designations for VAM coverage]



DQ&C report is particularly valuable because:

- It is available at all levels in the reporting hierarchy
- Last table in the report shows who reviewed it and when
- Filtering ability for LE and armored vehicles makes it very easy to look at just those subsets of the fleet, but also to make sure fleets without LE or armored vehicles don't have vehicles, costs, miles, fuel reported in the wrong categories

If you have ideas for additional reports or additions to existing reports that would facilitate your review process or would help find specific types of problems, contact the FAST development team!

Questions…

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